


TO: SUPERSEDED BY EI 94-032 EFFECTIVE 10/1/94	ENGINEERING INSTRUCTION NEW YORK STATE DEPARTMENT OF TRANSPORTATION
	SUBJECT: SAVINGS ANALYSES Subject Code: 7.1-5
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BACKGROUND

For over a year, the Department has experienced considerable "savings" on awarded projects. In many cases, contractors' low bids have been substantially below Engineers' Estimates. These have been referred to as "Negative Case II's". While there are many possible reasons for this occurrence, it appears to be chiefly due to general lack of construction work available because of the slowdown in the economy. As a result, competition has been intense for many of our projects and contractors appear to be willing to accept lower profits in order to stay busy.

At the May 8, 1990 Executive Capital Program Committee (ECPC) meeting, there was extensive discussion concerning the importance of having estimates that are closer to the low bid, particularly for financial planning purposes. As a result, the Office of Engineering was directed to establish and implement a system for regional and main office review of "Negative Case II" projects. This review will be referred to as a "Savings Analysis"

It is important to emphasize that an Engineers' Estimate is not an attempt to predict the low bid. Rather, it is an attempt to establish a reasonable price for the work included in a contract considering the current economic climate. Generally speaking, this is accomplished when the Engineer's Estimate is near the median of the bids received.

We have called the analysis a Savings Analysis in order to differentiate this process from the much more formalized analyses required for Case I's and Case II's as described in M.A.P. 7.1-5. The Savings Analysis process is conducted primarily by Regional Design staff and reviewed by Facilities Design Division staff. It is not the intent of the analysis to affect the award process, but rather to insure that future

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Engineer's Estimates closely reflect actual market conditions.

SAVINGS ANALYSES TRIGGERS

A Savings Analysis will be required for a project when the following two conditions are met:

1. The low bid is significantly below the Engineers' Estimate as described below and shown in Figure 1:
 - a. For EE's up to \$.4M, low bids more than 40% below the EE.
 - b. For EE's between \$.4M and \$2M, low bids below the EE by more than a percent defined by the equation:
$$\% = 12.5(EE - .4) - 40$$
 - c. For EE's beyond \$2M, low bids more than 20% below the EE.
2. The low bid is 5% or more below the median of all the bids.

POINTS TO BE CONSIDERED IN A SAVINGS ANALYSIS

The following items shall be considered for a Savings Analysis and discussed in the documentation:

1. Verify quantities of the items for which there were significant unbalanced bids and determine effects on the positions of the bidders.
2. Determine if the bids received indicate that prices for major items of work were estimated too high.
3. Determine if there was increased competition because there are few other projects of similar types in this general location.
4. Review lump sum items and all other items for which price analyses were prepared to determine if pricing assumed for the project is consistent with the current market in the project area.

The findings resulting from a study of the above items are to be discussed in a Savings Analysis Report. The report will also present the actions, if any, that the region will take

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on future project estimates. It is anticipated that pricing or other changes would only occur after a pattern or trend has been observed over a period of time.

STEPS IN SAVINGS ANALYSIS PROCEDURE

Responsibility

Action

Facilities Design Division

1. Identifies projects that need review. This will be done for each letting.

2. Obtains from BAMS a spreadsheet showing item price estimates and bids received for projects identified in 1. above.

3. Notifies the Region within 5 working days of the letting of the need for a Savings Analysis and provides a copy of the project spreadsheet.

Regional Design Group

1. Performs a Savings Analysis.

2. Submits a Savings Analysis Report to the Facilities Design Division within 40 working days of the letting. Report identifies what actions, if any, the Region will take on future estimates.

3. Periodically reviews results of Savings Analyses, analyzes trends, and makes adjustments to estimating procedures as appropriate.

Facilities Design Division

1. Reviews Savings Analysis Reports for completeness.

2. Compiles and analyzes results of Savings Analyses for each region. Makes suggestions on estimating

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procedures to the Region Design Engineer as appropriate.

3. Monitors the results of subsequent lettings to determine the effectiveness of the Regions' efforts to adjust estimating procedures relative to Savings Analyses findings. Where insufficient progress has been made, Main Office staff will work closely with the region to develop firm plans for improvement.
4. Prepares periodic reports of statewide and regional results to Executive Management and Regional Directors.
5. Prepares and distributes revised statewide estimating procedures as needed in response to Savings Analyses findings.

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SAVINGS ANALYSIS TRIGGERS

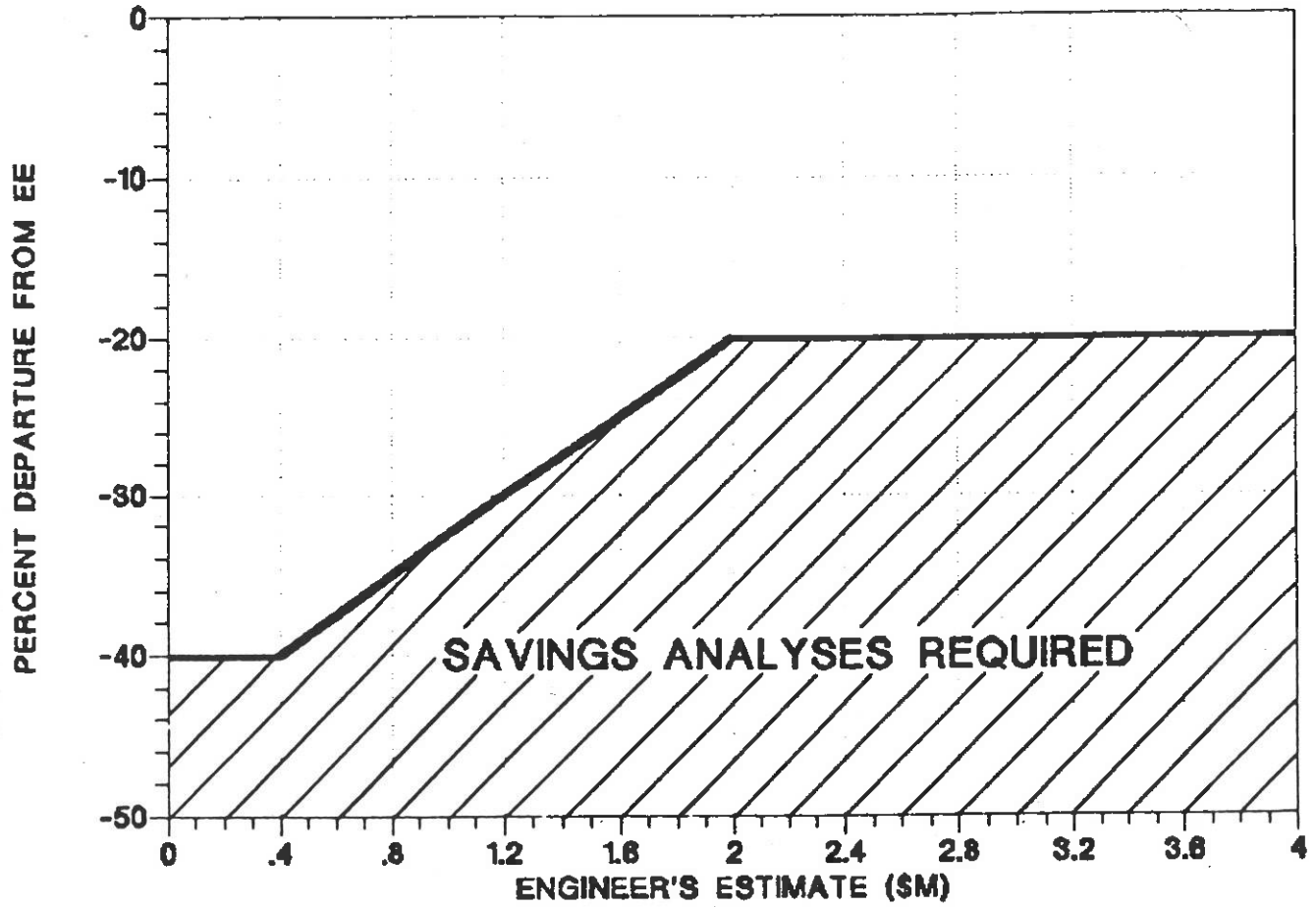


Figure 1